

Claim Amendments

Claims 1-44 (canceled)

45. (Previously amended) A repeater for a wireless network comprising:
a first transceiver operable to receive data transmitted on a first channel of a first frequency band during odd time intervals;
a second transceiver coupled to the first transceiver, the second transceiver operable to transmit data at a data rate of 11Mbps or greater on the first channel of the first frequency band during even time intervals, the second transceiver not transmitting during the odd time intervals; and
a third transceiver coupled to the first and second transceivers, the third transceiver operable to transmit and receive data in a second frequency band.

46. (Previously presented) The repeater of claim 45 wherein the first, second and third transceivers each include a transmitter and a receiver.

47. (Previously amended) The repeater of claim 45 wherein the second transceiver is further operable to receive data on the first channel and the first transceiver is further operable to transmit data on the first channel, such that the repeater is operable to function in a bi-directional manner.

48. (Previously presented) The repeater of claim 46 wherein the transmitters and receivers of the first and second transceivers are frequency programmable.

49. (Previously presented) The repeater of claim 46 wherein the transmitters and receivers of the first, second, and third transceivers are frequency programmable.

50. (Previously presented) The repeater of claim 45 wherein the first frequency band is a 5GHz frequency band and the second frequency band is a 2.4GHz frequency band.

51. (Currently amended) A repeater for a wireless network comprising:
an upstream transceiver operable to receive data transmitted on a first channel of a first frequency band during odd time intervals;
a downstream transceiver coupled to the upstream transceiver, the downstream transceiver operable to transmit data in on the ~~first frequency band~~ channel at a data rate of 11Mbps or greater during even time intervals, the downstream transceiver not transmitting during the odd time intervals; and
an additional transceiver coupled to the upstream and downstream transceivers, the additional transceiver operable to transmit data to, and receive data from, a destination device, the additional transceiver operating in a second frequency band.

52. (Previously presented) The repeater of claim 51 wherein the transmitters and receivers of the upstream and downstream transceivers are frequency programmable.

53. (Previously presented) The repeater of claim 51 wherein the downstream transceiver transmits data on a second channel of the first frequency band.

54. (Previously presented) The repeater of claim 51 wherein the first frequency band is a 5GHz frequency band and the second frequency band is a 2.4GHz frequency band.

55. (Previously amended) A wireless local area network (WLAN) comprising:
a plurality of repeaters arranged in a transmission chain, each repeater having an upstream transceiver coupled to a downstream transceiver, the upstream and downstream transceivers operating in a first frequency band, the upstream transceiver of a first repeater in the transmission chain being operable to receive data on a first channel during even time intervals, and the downstream transceiver of the first repeater being operable to transmit data at a data rate of 11Mbps or greater on the first channel to a next repeater in the transmission chain during odd time intervals, the downstream transceiver not transmitting during the even time intervals, the upstream transceiver of the next repeater receiving data during the odd time intervals, the downstream transceiver of the next repeater transmitting data at a data rate of 11Mbps or greater during the even time intervals, the downstream transceiver of the next repeater not transmitting data during the odd time intervals, at least one repeater of the plurality of repeaters including an additional transceiver operating in a second frequency band;
at least one destination device operable to receive data in the second frequency band;
a source device that transmits data to the at least one destination device across the transmission chain of the repeaters.

56. (Previously presented) The WLAN of claim 55 wherein the at least one destination device comprises a media receiver connected to a display device.

57. (Previously presented) The WLAN of claim 55 wherein the source device operates in the first frequency band.

58. (Currently amended) The WLAN of claim 55 wherein either the upstream transceiver or the downstream transceiver operates at any given time interval.

59. (Previously presented) The WLAN of claim 55 wherein the source device transmits data in the second frequency band.

60. (Previously presented) The WLAN of claim 56 wherein the transmitters and receivers of the upstream and downstream transceivers are frequency programmable, and further wherein each of the repeaters includes a computing means for programming the frequency channels of the upstream and downstream transceivers.

61. (Previously presented) The WLAN of claim 55 wherein the first frequency band is a 5GHz frequency band and the second frequency band is a 2.4GHz frequency band.

62. (Previously amended) A wireless network comprising:
a source device that transmits data on a first frequency channel;
a plurality of repeaters arranged in a tree topology, each of the repeaters having an upstream transceiver to receive the data, a downstream transmitter to

send the data across the wireless network, and an additional transceiver, the upstream and downstream transceivers operating on different frequency channels in a first frequency band, the additional transceiver operating to transmit and receive data in a second frequency band, the upstream transceiver of a first repeater in the tree topology being operable to receive data during odd time intervals, and the downstream transceiver of the first repeater being operable to transmit data to a next repeater in the tree topology during even time intervals, the downstream transceiver not transmitting during the odd time intervals, the upstream transceiver of the next repeater receiving data during the even time intervals, the downstream transceiver of the next repeater transmitting data during the odd time intervals, the downstream transceiver of the next repeater not transmitting data during the even time intervals; and

a destination device that receives the data.

63. (Previously presented) The wireless network of claim 62 wherein two or more of the repeaters are configured to receive the data from the source device in the first frequency band.

64. (Previously presented) The wireless network of claim 62 wherein one of the plurality of repeaters re-transmits the data directly to two or more of the repeaters.

65. (Previously presented) The wireless network of claim 62 wherein the source device is coupled to a broadband data network.

66. (Previously amended) The wireless network of claim 62 wherein either the upstream or downstream transceiver operates at any given time interval.

67. (Previously presented) The wireless network of claim 62 wherein the destination device receives the data in the second frequency band from the additional transceiver.

68. (Previously presented) The wireless network of claim 62 wherein the upstream and downstream transceivers each includes a transmitter and a receiver.

69. (Previously presented) The wireless network of claim 62 wherein each of the repeaters is configurable to operate in a bi-directional manner.

70. (Previously presented) The wireless network of claim 68 wherein the transmitters and receivers of the upstream and downstream transceivers are frequency programmable.

71. (Previously presented) The wireless network of claim 70 wherein each of the repeaters includes a computing means for programming the frequency channels of the upstream and downstream transceivers.

72. (Previously presented) The wireless network of claim 62 wherein the first frequency band is a 5GHz frequency band and the second frequency band is a 2.4GHz frequency band.